CLAIMS:

1. A method for extracting and processing video content to be emulated by an ambient light source (**88**), using an interframe interpolation process, comprising:

[1] Extracting color information from a video signal (**AVS**) that encodes at least some of said video content in said rendered color space by decoding said video signal into a set of frames (**F**), extracting said color information from only selected extraction frames ($\mathbf{F_1}$, $\mathbf{F_N}$), and performing interframe interpolation between said extraction frames to yield interpolated frames ($\mathbf{G_2}$, $\mathbf{G_3}$ +), said color information then newly derived from said extraction frames and said interpolated frames.

2. The method of claim **1**, additionally comprising:

[2] Transforming said color information to an unrendered color space (**XYZ**);

[3] Transforming said color information from said unrendered color space to a second rendered color space (**R'G'B'**) so formed as to allow driving said ambient light source.

3. The method of claim **1**, wherein step [1] additionally comprises extracting an average color ($\mathbf{R_{AVG}}$) from said color information.

4. The method of claim **1**, wherein step [1] additionally comprises at least one extraction of said color information from an extraction region (**R1**).

5. The method of claim **4**, wherein step [1] additionally comprises using said extraction of said color information to broadcast ambient light (**L4**) from said ambient light source adjacent said extraction region.

6. The method of claim **1**, wherein step [1] additionally comprises assessing a chrominance difference between extraction frames; and setting a frame extraction rate based on said chrominance difference.

7. The method of claim **2**, additionally comprising performing a gamma correction to said second rendered color space.

8. The method of claim **2**, wherein steps [2] and [3] additionally comprise matrix transformations of primaries (**RGB, R'G'B'**) of said rendered color space and second rendered color space to said unrendered color space using first and second tristimulus primary matrices ($\mathbf{M_1}$, $\mathbf{M_2}$);and deriving a transformation of said color information into said second rendered color space (**R'G'B'**) by matrix multiplication of said primaries of said rendered color space, said first tristimulus matrix, and the inverse of said second tristimulus matrix $(\mathbf{M_2})^{-1}$.

9. The method of claim **8**, wherein said unrendered color space is one of CIE XYZ; ISO RGB defined in ISO Standard 17321; Photo YCC; and CIE LAB.

10. The method of claim **8**, wherein step [1] additionally comprises extracting an average color ($\mathbf{R_{AVG}}$) from said color information.

11. The method of claim **10**, wherein step [1] additionally comprises at least one extraction of said color information from an extraction region (**R1**).

12. The method of claim **11**, wherein step [1] additionally comprises using said extraction of said color information to broadcast ambient light (**L4**) from said ambient light source adjacent said extraction region.

13. The method of claim **2**, wherein steps [1], [2], and [3] are substantially synchronous with said video signal (**AVS**).

14. The method of claim **2**, additionally comprising broadcasting ambient light (**L1**) from said ambient light source using said color information in said second rendered color space.

15. A method for extracting and processing border region video content from a rendered color space (**RGB**) to be emulated by an ambient light source (**88**) using an interframe interpolation process, comprising:

[1] Extracting color information from a video signal (**AVS**) that encodes at least some of said video content in said rendered color space by decoding said video signal into a set of frames (**F**), extracting said color information from only selected extraction frames ($\mathbf{F_1}$, $\mathbf{F_N}$), and performing interframe interpolation between said extraction frames to yield interpolated frames ($\mathbf{G_2}$, $\mathbf{G_3}$ +), said color information then newly derived from said extraction frames and said interpolated frames;

[2] Extracting an average color ($\mathbf{R_{AVG}}$) from said color information from an extraction region (**R1**) in each of said individual frames;

[3] Transforming said average color to an unrendered color space (**XYZ**);

[4] Transforming said average color from said unrendered color space to a second rendered color space (**R'G'B'**) so formed as to allow driving said ambient light source;

[5] using said average color to broadcast ambient light (**L4**) from said ambient light source adjacent said extraction region.

16. The method of claim **15**, wherein steps [1], [2], [3], [4], and [5] are substantially synchronous with said video signal (**AVS**).

17. The method of claim **15**, wherein steps [3] and [4] additionally comprise matrix transformations of primaries (**RGB, R'G'B'**) of said rendered color space and second rendered color space to said unrendered color space using first and second tristimulus primary matrices ($\mathbf{M_1}$, $\mathbf{M_2}$); and deriving a transformation of said color information into said second rendered color space (**R'G'B'**) by matrix multiplication of said primaries of said rendered color space, said first tristimulus matrix, and the inverse of said second tristimulus matrix $(\mathbf{M_2})^{-1}$.

18. A method for extracting and processing border region video content from a rendered color space (**RGB**) to be emulated by an ambient light source (**88**), using a colorimetric estimate, and employing an interframe interpolation process, comprising:

[1] Extracting color information from a video signal (**AVS**) that encodes at least some of said video content in said rendered color space by decoding said video signal into a set of frames (**F**), extracting said color information from only selected extraction frames ($\mathbf{F_1}$, $\mathbf{F_N}$), and performing interframe interpolation between said extraction frames to yield interpolated frames ($\mathbf{G_2}$, $\mathbf{G_3}$ +), said color information then newly derived from said extraction frames and said interpolated frames;

[2] Extracting a colorimetric estimate from said color information from an extraction region (**R1**) in each of said individual frames;

[3] Transforming said colorimetric estimate to an unrendered color space (**XYZ**);

[4] Transforming said colorimetric estimate from said unrendered color space to a second rendered color space (**R'G'B'**) so formed as to allow driving said ambient light source;

[5] using said colorimetric estimate to broadcast ambient light (**L4**) from said ambient light source adjacent said extraction region.

19. The method of claim **18**, wherein steps [1], [2], [3], [4], and [5] are substantially synchronous with said video signal (**AVS**).

20. The method of claim **18**, wherein steps [3] and [4] additionally comprise matrix transformations of primaries (**RGB, R'G'B'**) of said rendered color space and second rendered color space to said unrendered color space using first and second tristimulus primary matrices ($\mathbf{M_1}$, $\mathbf{M_2}$); and deriving a transformation of said color information into said second rendered color space (**R'G'B'**) by matrix multiplication of said primaries of said rendered color space, said first tristimulus matrix, and the inverse of said second tristimulus matrix $(\mathbf{M_2})^{-1}$.